

WHAT IS CLAIMED IS:

1. A method for powering down a circuit for a data retention mode comprising:

5 changing a supply voltage node from an active power voltage level to an inactive power level;

coupling a source of a P channel device to the supply voltage node;

10 providing a retaining power supply voltage level to a back gate of the P channel device;

changing a drain voltage of the P channel device to a reference voltage level, wherein the reference voltage level is different from the retaining power supply voltage level; and

15 changing a gate voltage of the P channel device to the reference voltage level.

2. The method of claim 1 wherein the reference voltage level is less than the retaining power supply voltage level.

20 3. The method of claim 1 wherein the reference voltage level is less than half the retaining power supply voltage level.

4. The method of claim 1 wherein the P channel device is in a wordline circuit.

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5. The method of claim 1 further comprising:
coupling a second P channel device in series with the
first P channel device;
coupling a first N channel device in series with the
5 second P channel device; and
coupling a second N channel device in series with the
first N channel device.

6. The method of claim 5 further comprising:
10 providing the retaining power supply voltage level to a
source of the second N channel device;
changing a drain of the N channel device to the
reference voltage level; and
changing a gate voltage of the N channel device to the
15 reference voltage level.

7. The method of claim 1 wherein the retaining power
supply voltage level is the same as the active power voltage
level.

20 8. The method of claim 1 wherein the active power voltage
level is 1.3V, the inactive power level is 0V, the reference
voltage level is .6V, the retaining power supply voltage level is
1.3V.